ZAKIROV, Tadzhitdin Salidzhanovich, kand. sel'khoz. nauk; GORELIK, I.M., red.; ABBASOV, T., tekhn. red.

[Chemical defoliation and desiccation of cotton] Khimicheskoe udalenie list'ev i vysushivanie khlopchatnika. Tashkent, Gosizdat UzSSR, 1962. 81 p. (MIRA 17:1)
(Cotton--Harvesting) (Defoliation)

2647-50 L 05125-67 EWT(1) RO

ACC NR: AP6030279 (AN) SOURCE CODE: UR/0394/66/004/008/0045/0048

AUTHOR: Zakirov, T. S.; Vasilevskiy, I. G.

18
B

ORG: All-Union Scientific Research Institute of Cotton Growing (Vsesoyuznyy nauchno-issledovatel'skiy institut khlopkovodstva)

TITLE: Results of tests of butyfos effectivity on cotton plants

SOURCE: Khimiya v sel'skom khozyaystve, v. 4, no. 8, 1966, 45-48

TOPIC TAGS: cotton, defoliant agent, butyfos, cotton bolls

ABSTRACT: In 1962-1964, tests were made in various cotton growing areas of Kazakhstan to determine the effectiveness of butyfos as a cotton plant defoliant. It was found that butyfos is the most effective cotton plant defoliant, although results are not satisfactory for fine fiber cottons. A concentrate of butyfos emulsion was found to be more effective and convenient than an oil solution. The compound was sprayed from the air and from the ground. A 2 kg/ha solution of butyfos is the best dose to use on cotton plants when 2--3 bolls are open on most plants. The dose must be increased to 3--4 kg/ha for large and highly productive plants, and also during late treatment and when the mean daily temperature is low. Orig. art. has: 3 tables. [W.A. 50]

[GC]

Card 1/1 SUB CODE: 02, 06, 07/ SUBM DATE: 20Jul65/ UDC: 631.551.633.51

ZAKIROV, T.Z.

Connection between initial copper mineralization and fissility of rocks. Uzb.geol.zhur. no.5:49-53 '58. (MIRA 12:2)

1. Institut geologii AN UzSSR.
(Tashkent region--Copper ores)

ZAKIROV, T. Z.; RUZMATOV, S. R.

Characteristics of the postore anhydrite mineralization of the Kalmakkyr deposit. Uzb. geol. zhur. 6 no.5:79-82 '62.
(MIRA 15:10)

1. Institut geologii AN Uzbekskoy SSR.

(Almalyk region—Anhydrite)
(Almalyk region—Ore deposits)

BAYMUKHAMEDOV, Kh.N.; ZAKIROV, T.Z.; ARIFDZHANOV, T.Kh.; KURBANOV, A.S.

Geology and conditions governing the distribution of mineralization of some gold-ore deposits in Uzbekistan. Uzb. geol. zhur. 7 no.3:11-18 '63. (MIRA 16:11)

1. Tashkentskiy politekhnicheskiy institut.

BAYMUKHAMEDOV, Kh.N.; ZAKIROV, T.Z.; SADYKOVA, A.S.

Characteristics of the concentration of molybdenum in postmagmatic deposits in some ore regions of Uzbekistan. Uzb. geol. zhur. 8 no.1: 7-12 '64. (MIRA 18:5)

1. Tashkentskiy politekhnicheskiy institut.

ZAKIROV, U.

Moving Pictures

Valuable experience. Kinomekhanik No. 3, 1952.

Monthly List of Russian Accessions, Library of Congress, August, 1952. UNCLASSIFIED.

ZAKIROV, U.

On the upswing. Mest.prom.i khud.promys. 2 no.7:34 Jl '61.
(MIRA 15:1)

1. Ministr promyshlennosti prodovol'stvennykh tovarov Tatarskoy ASSR, g. Kazan'.
(Tatar A.S.S.R.--Food industry)

Zakirov, U.A.

ZAKIROV, U.A., starshiy leytenant; ZAGORSKIY, B.S., starshiy leytenant; LUKANSKIY, N.N., kapitan.

Working with the DS-0,9 range finder. Artill. zhur. no.9-13 Ja '58. (MIRA 11:2)

(Range-finding)

ZAKIROV, U.B.

Antiemetic effects of meterazine. Farm. i toks. 24 no.4:422-425 Jl-Ag '61. (MIRA 14:9)

1. Laboratoriya chastnoy farmakologii (zav. - deystvitel'nyy chlen AMN SSSR prof. V.V.Zakusov) Instituta farmakologii i khimioterapii AMN SSSR.

(PHENOTHIAZINE)

ACC NR: AR6033654 (N) SOURCE CODE: UR/0417/66/000/009/0025/0025

AUTHOR: Umarova, Sh, S.; Zakirov, U. B.; Kamilov, I. K.

ORG: none

TITLE: Comparative evaluation of the effects of quaternary galantamine derivatives

SOURCE: Ref. zh. Farmakologiya, khimioterapevticheskiye sredstva, toksikologiya, Abs. 9.54.155
REF SOURCE: Sb. Farmakol. alkaloidov. Vyp. 2. Tashkent, Nauka, 1965, 258-263

TOPIC TAGS: pharmacology, galantamine, alkaloid, drug effect, quaternary amine

ABSTRACT: The pharmacological effects of galantamine hydroxymethylate, hydroxyethylate, hydroxyisopropylate, hydroxybutylate, and hydroxyamylate were studied. In rabbits doses from 0.1—3 mg/kg produced constriction of the pupils, muscular fibrillation and lacrimation. Five to ten mg/kg doses caused peristaltic movements of the intestine, urination, and defecation. Eleven mg/kg doses produced death from respiratory failure. Corresponding tertiary compounds required higher doses to produce the same effects. Galantamine derivatives produced more peripheral neuro-muscular activity than galantamine hydrobromide (ater-

Card 1/2 UDC: 615.785.4

ACC NR: AR6033654

tiary compound). The most effective compound was galantamine hydroxymethylate which, when administered in 0.05 mg/kg doses, increased the amplitude of muscle contraction by 46%. [W.A. 50]

SUB CODE: 06/ SUBM DATE: none

Card 2/2

ZAKIROV, U.B.

Effect of metherazine on conditioned reflex activity. Farm. toks. 24 no.3:271-275 My-Je '61. (MIRA 15:1)

1. Laboratoriya chastnoy farmakologii (zav. - deystvitel'nyy chlen AMN SSSR prof. V.V. Zakusov) Instituta farmakologii i khimioterapii AMN SSSR.

(CONDITIONED RESPONSE) (PHENOTHIAZINE--PHYSIOLOGICAL EFFECT)

ALIYEV, Kh.U.; KAMILOV, I.K.; ZAKIROV, U.B.

Pharmacological properties of apochlorine (methyl apogalanthamine hydrochloride). Dokl. AN Uz. SSR 21 no.9:50-51 '64.
(MIRA 19:1)

1. Institut khimii rastitel'nykh veshchestv AN UzSSR.

ZAKIROV, M. (Temirtau)

A light in the steppe. Vokr. znan. 40 no.1:40 Ja '64.
(MIRA 17:4)

ZAKIROV, Z. Sh.

137-58-5-10245

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 5, p 193 (USSR)

AUTHOR: Zakirov, Z.Sh.

TITLE: Internal Stresses in Platings (Vnutrenniye napryazheniya v gal'vanicheskikh pokrytiyakh)

PERIODICAL: Dokl. AN TadzhSSR, 1957, Nr 20, pp 79-82

ABSTRACT: A more precise method of determining internal stresses (IS) in platings by the bending of the cathode plate is set forth. The initial IS in galvanic coatings on the undeformed cathode are equal to the sum of the final IS and those removed in the deformation of the plate, i.e., $\sigma_{prim} = \sigma_{fin} + \sigma_{rem}$, where $\sigma_{fin} = 2\varepsilon I/\rho hF_2$; $\sigma_{rem} = E/\rho\sqrt{I/F}$; and $E = \sqrt{E_1 \cdot E_2}$; E_1 being the modulus of elasticity of the plate, E_2 the modulus of elasticity of the coating; I the moment of inertia, and F the cross-sectional area of the plate; ρ the radius of curvature of the neutral layer; h the total thickness of plate and coating; and F_2 the cross-sectional area of the coating. Scattering of the results obtained with this equation, according to the author's data, does not exceed 10%. 1. Plating--Stresses 2. Stress analysis 3. Cathodes (Electrolytic cell)--Properties

Card 1/1

LI, A.D.; ZAKIROV, P.K.

Find of Juniperus seravschanica Kom. on the Mura-Tau Range.
Bot.zhur. 44 no.9:1336-1337 S '59. (MIRA 13:2)

1. Institut botaniki AN UzSSR, Tashkent.
(Mura-Tau--Juniper)

GRAF, L.; KISHLEV, A.; ZAKIROV-ZIYEV, A.

Sand-jet drilling as a means for decreasing the degree of hole deviation. Izv. vys. ucheb. zav.; geol. i razv. 7 no.9:109-113 S '64. (MIRA 17:10)

1. Gosudarstvennyy geologicheskiy komitet.

KOGAN, D.I.; KISELEV, A.T.; ZAKIROV-ZIYEV, A.

Introducing rock-breaking bits in hydraulic percussion drilling. Biul. tekh.-ekon. inform. Gos. nauch.-issl. inst. nauch. i tekh. inform. 18 no.3:15-17 Mr '65. (MIRA 18:5)

ACC NR: AP7002452 SOURCE CODE: UR/0362/66/002/011/1200/1201

AUTHOR: Golubitskiy, B. M.; Zakirova, A. R.; Tantashev, M. V.

ORG: none

TITLE: Monte Carlo calculation of radiation transport in a homogeneous scattering sphere with a central point source

SOURCE: AN SSSR. Izvestiya. Fizika atmosfery i okeana, v. 2, no. 11, 1966, 1200-1201

TOPIC TAGS: transport phenomenon, radiation source, electromagnetic wave scattering, Monte Carlo method, angular distribution

ABSTRACT: The article deals with the angular distribution of radiation on the boundary of a homogeneous scattering sphere, in the center of which is situated an isotropic point source, using the only assumption that the scattering medium consists of a set of individually non-absorbing spherical particles, such as were discussed by D. Deirmenjian (Appl. Opt. v. 2, 187, 1964). The calculations were made with the 'Ural'-2' computer by the Monte Carlo method, making use of a known relation between any random number and its arbitrary distribution density, in this case the distribution density of the mean free paths and the scattering angles. The results were found to be in good agreement with trial calculations by means of numerical integration. It is indicated that the method can be used for calculations with arbitrary

 UDC: 535.36

ACC NR: AP7002452

scattering indicatrices with allowance for polarization and absorption, and also to solve more complicated problems of radiation transport. Orig. art. has: 2 figures and 4 formulas.

SUB CODE: 20/ SUBM DATE: 14Apr66/ ORIG REF: 004/ OTH REF: 001

Card 2/2

L 36637-65 EWT(l)/EEC(t) Pab IJP(c)

ACCESSION NR: AP4019974 S/0020/64/154/006/1325/1327

AUTHOR: Zakirova, F. S.

TITLE: Change of electric conductivity of minerals and ores with age

SOURCE: AN SSSR. Doklady*, v. 154, no. 6, 1964, 1325-1327

TOPIC TAGS: mineral conductivity, electric conductivity, aging, age determination, gas evolution, mineral, potassium 40, calcium 40, mica, feldspar

ABSTRACT: The author has found that the amount of gas (mainly hydrogen) which evolves from mica and feldspar upon heating depends upon the age of the mineral. Furthermore, it has been found that the conductivity of these minerals, upon heating from room temperature to 1150C, also depends upon the age. The calibration of conductivity as a function of age was prepared with minerals of known age. The age of over 200 specimens was determined by this method. The dependence of the conductivity on age is explained by the presence of K^{40} in the minerals. The β-decay of K^{40}, which is monovalent, into Ca^{40} with a valence

Card 1/2

ACCESSION NR: AP4019974

of two, and also the β-irradiation should increase the activation energy and decrease the conductivity. Orig. art. has: 1 figure and 2 tables.

ASSOCIATION: None

SUBMITTED: 10Sep62 ENCL: 00

SUB CODE: MT, EM NO REF SOV: 009 OTHER: 006

Card 2/2

109-6-17/17

AUTHOR: YASNOPOL'SKIY, N.L., DYMKOV A.E.

TITLE: Interdepartmental Seminar on Cathode Electronics. (Mezhduvedomstvennyy seminar po katodnoy elektronike, Russian)

PERIODICAL: Radiotekhnika i Elektronika, 1957, Vol 2, Nr 6, pp 814-816 (U.S.S.R.)

ABSTRACT: At the 5. meeting on the 8. April 1957 the following lectures were delivered:
M.M.VUDYNSKIY showed that irradiation of the screen surfaces of electron beam tubes by a de-focussed bundle leads to the production of three kinds of dark spots on the screen. On this occasion the surface potential of the non-conductor changes in two stages.
I.R.ZAKIROVA and S.A.FRIDRIKHOV gave a report on the kinetics of the production of a charge on the non-conductor surfaces (glass, mica) under the effect of a bombardment by electrons (in the interval of from 20 to 15000 eV).
G.S.KOZINA spoke about the peculiarities of the secondary emission of thin free aluminum oxide films (0,05 - 0,2 μ).
M.M.VUDYNSKIY gave a short report on the dependence of the coefficient of secondary electron emission upon the angle of incidence of the primary electrons for mica and semiconductor glass.

Card 1/2

109-6-17/17

Interdepartmental Seminar on Cathode Electronics.

V.B.KRUSSER gave a survey of the history, the present stage, and the ways of development of transmission television tubes in the U.S.S.R. He indicated the ways and means of further development. (With 3 Slavic References).

ASSOCIATION: Not given
PRESENTED BY:
SUBMITTED: 20.4.1957
AVAILABLE: Library of Congress

Card 2/2

ZAKIROVA, I. R.

109-3-4/23

AUTHORS: Shul'man, A.R., Zakirova, I.R., Morozov, Yu.A. and Fridrikhov, S.A.

TITLE: The Problem of the Method of Investigation of Secondary Electron Emission of Non-metallic Substances (K voprosu o metode issledovaniya vtorichnoy elektronnoy emissii nemetallicheskikh veshchestv)

PERIODICAL: Radiotekhnika i Elektronika, 1958, Vol. III, No.3, pp. 329 - 338 (USSR).

ABSTRACT: Description of a method of the measurement of secondary electron emission is given. The method is characterised by the following features: reduction in the time necessary for the experiments, increased accuracy, good stability of the measuring system and the target and elimination of the ternary electrons. The main component of the experimental equipment used in the measurements is a spherical, glass bulb fitted with apertures for a target and an electron gun. Diameter of the sphere is 145 mm. The electron gun is of the standard type and is provided with a focusing electrode; it is also furnished with a reflecting diaphragm which eliminates the scattered electrons from the beam of the gun. The diaphragm is given a potential near to that of the cathode. The gun is screened by means of a nickel cylinder. The target is

Card1/4

The Problem of the Method of Investigation of Secondary Electron Emission of Non-metallic Substances

in the form of a round, flat box having a diameter of 16 mm and is fitted with a helical heater. The target is fixed on to molybdenum supports and provided with a pair of leads for supplying the current to the heater. The heater can be earthed. The supporting wires of the target are taken to the input of an amplifier. The effect of ternary electrons is reduced by placing a spherical molybdenum grid, having a diameter of 125 mm, between the collector and the target. The transparency of the grid is of the order of 0.9. The grid has an aperture with a diameter of 40 mm for the leads of the target; another aperture, having a diameter of 16 mm, is provided for the primary electron beams (impinging on the target). Both the glass sphere and the grid are coated with silver by means of an evaporation process carried out in vacuum. For the analysis of secondary electron energies, a de-celerating potential U_3 is applied between the target and the grid; a potential U_g is applied between the grid and the collector, which accelerates the secondary electrons and slows down the ternary ones. The full experimental equipment (which was built around the spherical condenser) is shown in Fig.1. This consists of

The Problem of the Method of Investigation of Secondary Electron Emission of Non-metallic Substances

the above mentioned electron gun, the collector and the anti-dynatron grid and contains the following units: supplies for the electron gun, a rotary potentiometer, supplies for the potentiometer, a synchronous motor, a registering instrument, a delay circuit, a rectangular pulse generator, an amplifier, a pulse lengthener, an oscillograph with a triggered time base; an automatic switching device and a synchronous motor driving the tape of the registering device. The functioning of the equipment and its applicability to the measurement of the secondary electron emission was thoroughly investigated. It was found that the equipment could be used for single-pulse measurements as well as for the investigation by means of periodically repeated pulses; in particular, it was possible to obtain good reproducibility of the secondary emission coefficient. The effect of the anti-dynatron grid on the secondary emission current is illustrated by the curves of Figs. 5, 6, 7 and 8. From these, it is concluded that U_g should be of the order of 100 V. The stability of the primary electron current is an important factor in the equipment, especially when the de-celerating potential U_3 is varied;

The Problem of the Method of Investigation of Secondary Electron Emission of Non-metallic Substances

it was found that the primary current as a function of U_3 did not vary more than 1 to 2%. Some measurements on the distribution of the secondary electron energies were carried out. The resulting curves are shown in Fig. 12. The Curve 1 of Fig.12 was taken for Ni at $U_3 = - V_p$ (where V_p is the accelerating potential of the primary electrons); this curve is in good agreement with the results obtained by R. Warnecke (Ref.11), which are represented by Curve 2.
There are 12 figures and 12 references, of which 6 are English, 5 Russian and 1 German.

SUBMITTED: February 18, 1957

AVAILABLE: Library of Congress
Card 4/4

AUTHORS: Zakirova, I. R., Fridrikhov, S. A. 48-22-5-9/22

TITLE: The Kinetics of the Charge Accumulation by the Surface of Dielectrics During Irradiation by an Electron Beam (Kinetika nakopleniya zaryada poverkhnost'yu dielektrika pri obluchenii elektronnym puchkom) Data From VIIIth All-Union Conference on Cathode Electronics, Leningrad, October 17-24, 1957 (Materialy VIII Vsesoyuznogo soveshchaniya po katodnoy elektronike, Leningrad, 17-24 oktyabrya 1957 g.)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya, 1958, Vol. 22, Nr 5, pp. 546 - 555 (USSR)

ABSTRACT: If charged particles strike the surface of a dielectric or an insulated metal body, these object become charged. The velocity of the charge accumulation and the quantity of the charge under equilibrium conditions depend on a number of factors which are determined by the properties of the surface that is to be charged and by the quantity of the impinging and the flying off particles. On the one side the charging of the dielectric surfaces can be undesired (e.g. in electrovacuum devices (Reference 1), on the other hand the operation of several electrovacuum devices (References 2,3) is based upon the uti-

Card 1/4

lisation of the phenomenon of charging. Therefore the interest in the mechanism of formation and in the behavior of the charge spot on the surface of the dielectric. A survey of the publications dealing with the same subject is given. The authors applied a new pulse method for the investigation of the forming and disappearing kinetics of the charges on the surface of the dielectrics by a bombardment by electrons. It was found that from a certain instant (the moment of the disturbance of the condition of the full decrease of the secondary current) onward the velocity of the charge accumulation on the surface of the dielectric decreases. For this the influence of the fields is responsible, which are caused by the formation of the charge spot itself. This leads to the fact that in general case the surface of the dielectric obtains the quantity of electricity which would be sufficient for the charging of the target surface unto the collector potential neither during the occuring of the quasisteady state t_{qs} nor even later within the period τ. The latter cannot be reached at all because of an extremely slow charge accumulation after the reaching of the quasisteady state

and because of a noticeable role which the leakages can play in this case. It was proved that the duration τ during which the conditions of a full decrease of the secondary current are maintained linearly increases with the intensity of the collector field. Thus the quantity of electricity which was accumulated by the surface of the dielectric (at the movements τ and t_{qs}) depends at the concerned collector potential on the geometrics of the device. The so called barrier-net also serves for the increase of the period τ i.e. for the deepening of the potential relief and for the acceleration of the process of charging unto the prescribed potential during the bombardment of the dielectric by means of an electron beam. The quantities τ and t_{qs} are independent of the energies of the bombarding electrons. Under given concrete conditions they are determined by the quantity of the accumulated charge. This plot was suggested by A. R. Shul'man who assisted as an advisor. In the performance of the work V. V. Bashenko and T.A. Koryakina took part (measurements). In the discussion on the abstract V. Ya. Upatov, A. V. Morozov, L. N. Dobretsov, A. A. Mostovskiy and the first

The Kinetics of the Charge Accumulation by the Surface of Dielectrics During Irradiation by an Electron Beam 48-22-5-9/22

author participated. There are 12 figures and 9 references, 7 of which are Soviet.

ASSOCIATION: Leningradskiy politekhnicheskiy institut im. M. I. Kalinina (Leningrad Polytechnical Institute imeni M. I. Kalinin)

1. Dielectrics---Electrical properties 2. Dielectrics---Surface properties 3. Electron beams---Applications

Card 4/4

ZAKIROVA, I. R.

AUTHORS: Shul'man, A. R., Zakirova, I. R., Morozov, Yu. A., Fridrikhov, S. A. 57-1-13/30

TITLE: Secondary Electron Emission of Nickel (Vtorichnaya elektronnaya emissiya nikelya)

PERIODICAL: Zhurnal Tekhnicheskoy Fiziki, 1958, Vol. 28, Nr 1, pp. 87-96 (USSR)

ABSTRACT: The task of the present work was to close the gaps existing in literature regarding the energy spectra of secondary electrons emitted by metals, as well as to obtain data on the distribution of secondary electrons according to energies in nickel. That is to say of all those which are emitted within the whole range of secondary electron energy at various V_p (energy of primary electrons) of from 200 to 2000 V with nickel. Starting from the data on the distribution of secondary electrons according to energies the problem of the importance of the quantities obtained at the investigation of the basic dependence (which characterizes the secondary emission characteristics of the material - of the dependence of the coefficients of the electron emission on V_p) is dealt with. The method of spherical condenser with a spheric

Card 1/3

suppressor grid was used. The method of the automatic recording of measuring results, as described in reference 2, was also used. As result of the investigation the following can be stated: 1) Tertiary electrons emitted from the collector exercize an essential influence on the measuring results of secondary current in the retarding field. The introduction of the suppressor grid offers the possibility to essentially decrease the influence of tertiary electrons and thereby to obtain much more reliable data than was earlier the case. The distribution of the secondary electrons according to the energies of from 0 to V_p was investigated. Complete lag curves for nickel were obtained at V_p of from 200 to 2000 V. 2) In the spectrum of the secondary electrons it is not possible to draw a limiting line between the reflected primary and the real secondary electrons. Apparently both kinds of electrons are represented in all parts of the spectrum. With small energies of secondary electrons assumption that real secondary electrons are of dominating importance is reasoned. For the analysis of the energy spectrum of electrons (of nickel) an assumed border between slow and quick secondary electrons, equal to

loo eV, is chosen. 3) The basic fact resulting from the measurements is that in the spectrum of secondary electrons of metals the relative number of quick electrons can be compared with that of slow electrons. The width of the maximum corresponding to the slow real secondary electrons is a little greater than was earlier assumed. In order to mark the number of quick secondary electrons magnitudes are introduced as follows: γ - the part of quick electrons in secondary current and η - the ratio between the number of quick electrons and the quantity of the primary current. γ increases linearly with the increase of V_p and reaches up to 26% of the total number of secondary electrons at 1600. η is only little dependent on V_p and is equal to 33% of the primary current value at 1600. 4) The retardation vurves in relative coordinates coincide with one-another only if V_p is greater than 1200 V. If V_p values are smaller the curves differ. 5) With all values applied for V_p an elastic reflexion of primary electrons takes place. The reflection coefficient at $V_p > 800$ V is not greater than 3% of the total number of primary electrons. 6) When primary current is measured in the circuit of the target in the case of not complete

blanking of secondary electrons for the coefficient of secondary emission σ_T a value was obtained which differs from that of total retardation of secondary electrons. 7) In order to mark the emission of slow electrons the magnitudes σ_T and δ can be used (coefficient of the emission of slow electrons). As the existing theories only take into account the stimulation of secondary electrons by primary electrons and as inelastic reflection of primary electrons and the formation of slow secondary electrons with the motion of quick secondary and of inelastically reflected primary electrons are not taken into account, the comparison between theoretical and experimental data can not be carried out with sufficient exactness. There are 12 figures and 8 references, 2 of which are Slavic.

ASSOCIATION: Leningrad Polytechnical Institute imeni M. I. Kalinin (Leningradskiy politekhnicheskiy institut imeni M. I. Kalinina)

YUNUSOVA, A.N.; MEL'NIKOVA, N.A.; BEREGOVSKAYA, Z.G.; ZAKIROVA, M.I.; SILINA, A.G.

Nutrition of children in preschool boarding establishments in Kazan and suggestions for its improvement. Kaz. med. zhur. no.4:84-88 Jl-Ag '61. (MIRA 15:2)

1. Kafedra gigiyeny pitaniya (zav. - dotsent A.N.Yunusova) Kazanskogo meditsinskogo instituta i gorodskoy sanepidstantsii (glavnyy vrach - A.N.Krepysheva).
(KAZAN--CHILDREN--NUTRITION)

USSR / Soil Science. Mineral Fertilizers. J

Abs Jour: Ref Zhur-Biol., No 7, 1958, 29490.

Author : Zakirkova, M.P.
Inst : Not given.
Title : Liquid Nitrogen Fertilizers on Kolkhoz Fields. (Production Experiments at the Lenin Kolkhoz, Borodyankiy Rayon, Kiyevskaya Oblast'). (Zhidkiye azotnyye udobreniya na kolkhoznykh polyakh. (Proizvodstvennyye opyty v kolkhoze imeni Lenina, Borodyanskogo rayona, Kiyevskoy oblasti).

Orig Pub: Udobreniye i urozhay, 1957, No 6, 24-31.

Abstract: No abstract.

Card 1/1 21

ZAKIRKOVA, M. P.

Cand Agr Sci - (diss) "Effectiveness of liquid nitrogen fertilizers on the sod-podzolic soils of the Poles'ye /forested area/ of the Ukrainian SSR." Kiev, 1961. 15 pp; (Ministry of Agriculture Ukrainian SSR, Ukrainian Academy of Agricultural Sciences); 250 copies; price not given; (KL, 6-61 sup, 231)

ZAKIROV, I.Z., dotsent; MEMETOVA, U.Z., ordinator

Data on oxyhemometry in normal and pathological pregnancy and labor. Med. zhur. Uzb. no. 2:3-6 F '61. (MIRA 14:2)

1. Iz kafedry akusherstva i ginekologii (zav. - prof. G.I. Ioffe-Golubchik) Samarkandskogo gosudarstvennogo meditsinskogo instituta imeni I.P. Pavlova.
(BLOOD—OXYGEN CONTENT) (PREGNANCY, COMPLICATIONS OF)

KORZHAVIN, B.D., otv.red.; MUKHAMEDZHANOV, M.V., akademik, red.; KHANAZAROV, D.N., red.; ZAKIROV, K.Z., akademik, red.; RYZHOV, S.N., akademik, red.; YEREMENKO, V.Ye., akademik, red.; DADABAYEV, A.D., akademik, red.; RAKHIMOV, A.A., akademik, red.; DZHALILOV, Kh.M., kand.ekonom. nauk, red.; BONDARENKO, M., red.; BAKHTIYAROV, A., tekhn.red.

[Farm management system in recently reclaimed areas of the Golodnaya Steppe; measures for obtaining the maximum output of farm products per 100 hectares of cropland with a minimum expenditure of labor and other means] Sistema vedeniia sel'skogo khoziaistva na zemliakh novogo osvoeniia Golodnoi stepi; meropriiatiia po maksimal'nomu vykhodu sel'skokhoziaistvennykh produktov na 100 ga zemel'nykh ugodii pri naimen'shikh zatratakh truda i sredstv. Tashkent, Gos. izd-vo Uzbekskoi SSR, 1959. 158 p. (MIRA 14:2)

1. Uzbekskaya akademiya sel'skokhozyaystvennykh nauk. 2. Chleny-korrespondenty AN Uzbekskoy SSR (for Korzhavin, Yeremenko). 3. AN Uzbekskoy SSR (for Mukhamedzhanov, Zakirov). 4. Uzbekskaya akademiya sel'skokhozyaystvennykh nauk (for Mukhamedzhanov, Zakirov, Ryzhov, Yeremenko, Dadabayev, Rakhimov). 5. Ministr sel'skogo khozyaystva UzSSR (for Khanazarov). 6. Chlen-korrespondent Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk imeni V.I.Lenina (for Ryzhov). 7. Direktor instituta ekonomiki Uzbekskoy akademii sel'skokhozyaystvennykh nauk (for Dzhalilov).
(Golodnaya Steppe--Agriculture)

EGAMBERDIYEV, M.E.; ZAKIROV, M.Z.

Lithology, and petrographic and mineralogical composition of upper Cretaceous and Paleogene clays in Auminzatau (Kyzyl Kum). Uzb. geol. zhur. no.3:55-67 '60. (MIRA 13:11)

1. Institut geologii i razrabotki neftyanykh i gazovykh mestorozhdeniy i Institut geologii AN UzSSR.
(Aminza-tau--Clay--Analysis)

BAYMUKHAMEDOV, Kh.N.; VOL'FSON, F.I.; ZAKIROV, T.Z.; KOROLEV, V.A.; KREYTER, V.M.; KUSHNAREV, I.P.; LUKIN, L.I.; NEVSKIY, V.A.; NIKIFOROV, N.A.; PEK, A.K.; RUSANOVA, O.D.; SONYUSHKIN, Ye.P.; CHERNYSHEV, V.F.; SHEKHTMAN, P.A.

Aleksei Vasil'evich Korolev; obituary. Geol. rud. mestorozh. no.4:134-135 Jl-Ag '60. (MIRA 13:8)
(Korolev, Aleksei Vasil'evich, 1897-1960)

YUNUSOV, A.Yu.; TURSUNOV, Z.T.; ZAKIROVA, V.S.

Effect of some liquids on the blood in cases of high temperature and dehydration of the body. Izv. AN Uz. SSR. Ser. med. no.1:11-21 '58. (MIRA 12:7)

1.Institut krayevoy meditsiny AN UzSSR.
(BLOOD--ANALYSIS AND CHEMISTRY)
(HEAT--PHYSIOLOGICAL EFFECT)

TEREGULOV, G.R., zootekhnik; ZAKIR'YANOV, Sh.Kh., zootekhnik; MENDELEVICH, M.M., red.; LODVIKOVA, A.S., red.; SAGITOVA, S.G., tekhn.red.

[Experience of leading swine breeders of the Tatar A.S.S.R.; based on materials of the Conference of the Swine Breeders of the Tatar A.S.S.R.] Opyt peredovykh svinovodov Tatarii; po materialam respublikanskogo soveshchaniia svinovodov. Kazan', Tatarskoe knizhnoe izd-vo, 1960. 68 p.
(Tatar A.S.S.R.--Swine) (MIRA 14:1)

L 2775-66 EWT(d)/EED-2
ACCESSION NR: AP5022018 UR/0286/65/000/014/0087/0088

40
38
B

AUTHOR: Zakirzyanov, Z. Sh.; Sitnikov, L. S.; Utyakov, L. L. 44

TITLE: A pulse repetition frequency divider. Class 42, No. 173032

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 14, 1965, 87-88

TOPIC TAGS: pulse recurrence, pulse position modulation, frequency divider 5,44

ABSTRACT: This Author's Certificate introduces a pulse repetition frequency divider which contains multistable pulse-position elements. The device is designed for giving frequency division coefficients as high as desired and output pulse repetition frequencies as low as desired with a rather simple circuit and unified division stages. The input to each pulse-position element is connected through a two-input OR gate to the input of the preceding pulse-position element and to the input of the external pulse source. The input to the first pulse-position element is connected to the external pulse source. The outputs from the first and second elements are connected to the inputs of the first coincidence gate. The output from the first coincidence gate and that from the third pulse-position element are connected to the inputs of the second coincidence gate. The output from the k-th coincidence gate and

Card 1/3

L 2775-66

ACCESSION NR: AP5022018

2

from the (k-2)-th pulse-position element are connected to the (k-1)-th coincidence gate.

ASSOCIATION: Institut matematiki SO AN SSSR (Institute of Mathematics, SO AN SSSR)

4

SUBMITTED: 21Jul64 ENCL: 01 SUB CODE: EC

NO REF SOV: 000 OTHER: 000

Card 2/3

L 2775-66

ACCESSION NR: AP5022018

ENCLOSURE: 01

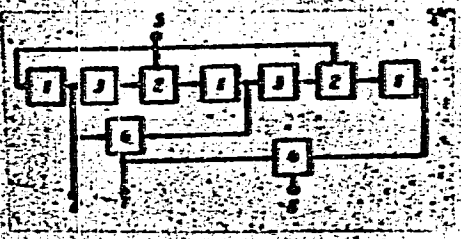


Fig. 1. 1—multistable pulse-position element; 2—OR gate; 3—delay cell; 4—coin
cidence gate; 5—cadence frequency pulse input; 6—first output; 7—second output;
8—third output.

Card 2/3 hd

ZAKIS, E., kand.tekhn.nauk; DRIZINA, T., inzh.

Evaluating operational costs by means of consolidated norms. Avt. transp. 42 no.1:33-35 Ja '64. (MIRA 17:2)

ZAKIS, E., kand. tekhn. nauk; DRIZINA, T., kand. ekonom. nauk

Effect of the concentration of freight operations at railroad stations on the economic indices of automotive transportation. Avt. transp. 43 no.10:35-37 O '65. (MIRA 18:10)

ZAKIS, E.V., kand.tekhn.nauk; PERSIANOV, V.A., kand.tekhn.nauk;
POLUEKTOV, A.P., inzh.

Automatization of operational procedures in railroad transportation.
Zhel.-dor.transp. 43 no.9:64-67 S '61. (MIRA 14:8)
(Railroads)
(Automatic control)

ZAKIS, E.V., kand. tekhn. nauk

Selecting types of passenger platforms for surburban liner being electrified. Transp. stroi. 14 no.10:35-36,47 O '64.

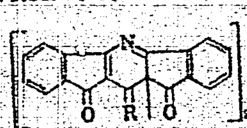
ZAKIS, I.

Darwinism in Latvia. Vestis Latv ak no.12:118-120 '59. (EEAI 9:11)
(Evolution) (Latvia--Biology)

ZAKIS, G. F.

Dist: 4E4j/4E2c(j)

Imines of di- and polyketones. I. 2-Phenylindan-1,3-dione. G. Vanags, [illegible] Freimanis, and G. Zakis (Latvian State Univ., Riga). [illegible] 27, 2730-34 (1957).—Refluxing 5 g. 2-phenylindan-1,3-dione (I) in 50 ml. AcOH with 10 g. NH_4OAc gives 85% I imine, red, m. 200° (AcOH). It hydrolyzes to I in hot concd. HCl. The imine does not dissolve in alkalies but is attacked by basic reducing agents which cleave NH_3 from it. With Br_2-AcOH the imine yields 2-bromo-2-phenylindan-1,3-dione, m. 104°. With concd. HNO_3 the imine yields 2-nitro-2-phenylindan-1,3-dione, m. 123°. The imine reacts with $NH_2OH.HCl$, yielding the dioxime, m. 223-4°, and monoxime, m. 152-3°, which is more sol. in $ClCH_2CH_2Cl$; the air-dried monoxime m. 116-17°. I imine refluxed with $PhNH_2$ in AcOH 7 hrs. gives I anil, m. 212°. Similarly iso-$BuNH_2$ gives a complex of I with its isobutylimine, orange-yellow, m. 132°, which refluxed with aq. Na_2CO_3 gave the insol. I isobutylimine, m. 101° (shrinks at 180°); this hydrolyzes readily in warm acids and is readily brominated and nitrated, yielding the same products as described above. II. Trisindandione. G. Vanags and G. Duburs. Ibid. 2729-33.—Treatment of trisindandione, o-$C_6H_4(CO)_2C[CH(CO)_2C_6H_4$-$o]_2$ (I), (1 g.) with 100 ml. AcOH and refluxing with 5 g. NH_4OAc 5 hrs. gives red crystals which after extn. with hot AcOH then with aq. NH_4OH gives 10% red-brown 1,3-indandionespiro-(2,4')-2',3',6',5'-dibenzoylene-3',4'-dihydropyridine, m. 285°, which forms colored solns. in acids and bases. With aq. KOH it gives a yellow oxidation product II (R = o-phthaloyl) which with KOH-H_2O_2 gave yellow needles of oxidation



(II)

7
2 Fr[illegible]
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1/2

G. Vargas, J. Filmann . . .

[illegible]

[illegible] by warming the filtrate with a little 30% H_2O_2. Similarly is prepd. *4-m-nitrophenyl analog*, decomp. 300°. I in pyridine with semicarbazide yields the disemicarbazone, yellow solid which decomp. without melting on heating. I and $HONH_2$ in pyridine gives yellow *monoxime*, does not melt before decompn., while the use of large excess of hydroxylamine gave mainly the *dioxime*, decomp. 297–8°. The *monoxime* with Ac_2O forms the *monoacetate*, yellow solid, $C_{21}H_{14}O_3N_2$. I with AcOH-Zn gives colorless 11-phenyl-10,12-dihydroxydibenzylenepyridine, m. 303–5°, which with PhNCO forms the *bis(phenylisocyanate)*, colorless solid. G. M. Kosolapoff

2/2 RM

Zakis, I. Ya.

KOSHTOYANTS, Kh. S.; ZAKIS, I. Ya.

"Charles Darwin. (On the 50th Year of His Death)". (Charl'z Darvin. [K pyatidesyatiletiyu so dnya smerti]).

Probl. Zhivotn., 1932, No 4, 13-21, portr. [Together with I. Ya. Zakis]

SOV/112-57-9-20048

Translation from: Referativnyy zhurnal, Elektrotekhnika, 1957, Nr 9, p 305 (USSR)

AUTHOR: Zakis, M.

TITLE: State of the Radio Industry in Bourgeois Latvia and Its Development in Soviet Latvia (Sostoyaniye radiopromyshlennosti v burzhuaznoy Latvii i yeye razvitiye v Sovetskoy Latvii)

PERIODICAL: Izv. AN LatvSSR, 1956, Nr 4, pp 97-104

ABSTRACT: In bourgeois Latvia, most radio receivers had one or two tubes, their production was in short series, and semi-artisan methods were used on a low technical level. There was no specialized factory for producing radio receivers, production was based on imported parts. Output in bourgeois Latvia was 1 radio receiver per 61 men; in Soviet Latvia there is (1954) 1 radio receiver per 6.3 men. At the present time, 4 large factories are in operation manufacturing radio equipment from local raw materials with an output of 4, million nstn. Soviet Latvia manufactures two types of radio receivers of the first class, "Mir" and "Riga-10," two second-class types, "Baltika" and Riga-6," and one

Card 1/2

Conditions of the Radio Industry in Bourgeois Latvia and Its Development in . . . .

type of radiosonde. According to the directives of the 20th Congress CPSU, production in 1960 should be 10.2 million radio receivers and TV sets.

T.A.S.

AVAILABLE: Library of Congress

Zakis, Martin Petrovich

Tekhnicheskiy progress v radiopromyshlennosti Sovetskoy Latvii [Technical progress in the radio industry of Soviet Latvia] Riga, Izd-vo Akademii Nauk Latviyskoy SSSR, 1957.

121 p. illus., tables.
Bibliographical footnotes.

At head of title: Akademiya Nauk Latviyskoy SSR.

ZAKIS, V. I.

33865. O Rastyazhyenii Po Dolgotye BiPolyarnykh Grupp Solnyechnykh Pyatyen. Byullyetyen Vsyesoyuz. Astron.-Gyeodyez. O-va, No 6, 1949, C. 31-33.

SO: LETOPIS' Zhurnal'nykh Statey, Vol. 46, Moskva, 1949.

ZAKIS, Martin Petrovich ; GRINBERG, E., red.; LEVI, S., red.; BOKMAN, R., tekhn. red.

[Technological progress of the radio equipment industry in Soviet Latvia] Tekhnicheskii progress v radiopromyshlennosti Sovetskoi Latvii. Riga, Izd-vo Akad. nauk Latviiskoi SSR, 1957. 121 p. (MIRA 15:2)

(Latvia--Radio industry)

L 24508-66 EWT(m)/EWP(t) IJP(c) JD

ACC NR: AP6007713 SOURCE CODE: UR/0413/66/000/003/0112/0112

AUTHOR: Grinshpun, S. I.; Zekis, Ya. M.; Kokle, A. L.; El'perin, S. I. 17 B

ORG: none

TITLE: Device for metallizing in vacuum. 18 Class 48, No. 178635 [Announced by the Design and Technological Office for Metallizing in Vacuum, Council of National Economy, Latvian SSR (Kostruktorsko-technologicheskoye byuro metallizatii v vakuume SNKh Latviyskoy SSR)] 18

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 3, 1966, 112

TOPIC TAGS: metallizing, vacuum metallizing

ABSTRACT: An Author Certificate has been issued describing a device for metallizing in vacuum. It consists of vacuum chambers with drums, cells, evaporators, vacuum shut-off devices, shut-off devices, a collector, an oil-absorbing filled trap, and a vacuum-producing system. To simplify the design and reduce the operating cycle, the evaporators are made to serve simultaneously as glow-discharge electrodes and the entire space of the collector is filled with an oil-absorbing material. To secure the collector in a vertical position, it is equipped with a self-adjusting lever-type tightening device (see Fig. 1). [LD]

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Card 1/2 UDC: 621.793.093.14

L 24508-66

ACC NR: AP6007713

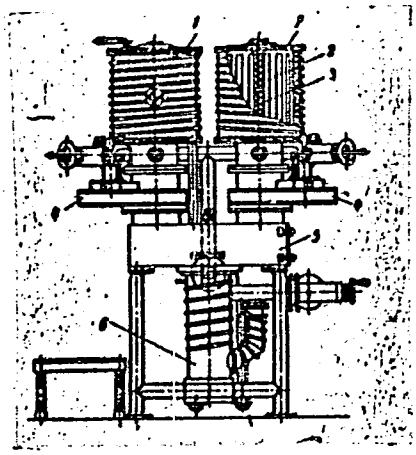

Fig. 1 - Device for metallizing in vacuum.

1 - vacuum chambers; 2 - drum with cells;
3 - evaporator; 4 - vacuum shut-off devices;
5 - collector; 6 - vacuum system

SUB CODE: 13/ SUBM DATE: 06Jun64/

Card 2/2 BLG

L 37706-66 EWT(m)/EWP(t)/ETI IJP(c) JD

ACC NR: AP6027710 SOURCE CODE: UR/0259/66/000/001/0002/0007

AUTHOR: Zakis, Yu.

39
B

ORG: none

TITLE: New rival of semiconductors

SOURCE: Nauka i tekhnika, no. 1, 1966, 2-7

TOPIC TAGS: semiconductor diode, semiconducting material

ABSTRACT: The greater part of the article describes in semitechnical language the discovery, construction, and operation of semiconductor diodes and triodes. This is followed by the description of "hot electron" production from insulator-metal layers discovered in the USA in 1960, and the discussion of possible future uses of semiconductor-metal-semiconductor triodes, especially in the very high frequency field. Orig. art. has: 7 figures. [JPRS: 36,462]

SUB CODE: 09 / SUBM DATE: none

Card 1/1

20841

S/048/61/025/003/030/047
B104/B202

24.3500 (1138, 1153, 1395)

AUTHORS: Shmits, O. A. and Zakis, Yu. R.

TITLE: Optical properties of alkali halide crystals with O-, S-, Se- and Te-impurities

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, v. 25, no. 3, 1961, 385-386

TEXT: This paper was presented at the 9th conference on luminescence (crystal phosphors), Kiyev, June 20 to 25, 1960. The studies are described which were made in continuation of those of 1959 of alkali halide crystals with O-, S-, Se-, and Te-impurities. The KCl KBr and KJ crystals were obtained by breeding by the method of Stockbarger or by diffusing impurity vapor into colored crystals. The study of the absorption spectra of the crystals containing oxygen impurities showed results which were in agreement with those obtained by western scientists in earlier papers. Fig. 1 shows the absorption spectrum (curve 1), the excitation spectrum (curve 2), and the spectrum of photoluminescence (curve 3) in the case of excitation with λ = 313 mμ of a KBr-Se crystal. A KBr-Te crystal has a similar

Card 1/3

Optical properties of alkali...

spectrum. The KCl crystals with the above impurities show a monotonic increase of absorption into the direction of shorter waves without distinct maxima. All crystals have weak photoluminescence in the visible range which has hitherto not been studied more accurately. Absorption in KJ crystals with the same impurities increases into the same direction, however, maxima can be observed. They also exhibit photoluminescence in the visible range of the spectrum. Hence, it is obvious that the absorption and luminescence spectra of KCl, KBr, and KJ crystals with O-, S-, Se-, and Te-impurities are characteristic of this type of impurities. This becomes especially manifest by the fact that these spectra of the mentioned crystals are completely different when containing Cu or Pb. Furthermore, it was clearly observed that the maxima of these spectra decrease with decreasing concentration of the impurities. It is assumed that the mentioned impurities, are bivalent anions in the crystal lattice. In the following discussion Ch. B. Lushchik states that the major part of the papers deals with the study of cation impurity luminescence centers and that more attention should be paid to the anion luminescence centers. There are 1 figure and 4 non-Soviet-bloc references.

Card 2/3

Optical properties of alkali...

ASSOCIATION: Latviyskiy gos. universitet im. P. Stuchki (Latvian State University imeni P. Stuchki)

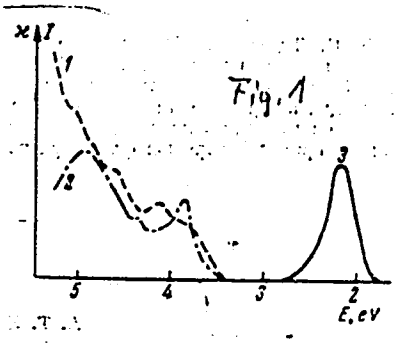

Fig. 1

Card 3/3

ACCESSION NR: AT4016303 S/0000/62/000/000/0160/0163

AUTHOR: Alekseyeva, L. A.; Zakis, Yu. R.; Shmit, O. A.

TITLE: Optical properties of alkali halide crystals with admixtures of elements of the sixth group

SOURCE: Vses. soveshch. po fiz. shchelochnogaloidn. kristallov. 2d, Riga, 1961. Trudy*. Fiz. shchelochnogaloidn, kristallov (Physics of alkali halide crystals). Riga, 1962, 160-163

TOPIC TAGS: alkali halide, alkali halide crystal, optical property, luminescence, absorption spectrum, crystal impurity, spectrophotometry, sulfur admixture, selenium admixture, tellurium admixture

ABSTRACT: Crystals of alkali halides such as NaCl, KCl, KBr and KI, containing small amounts of S, Se, Te, Na_2S or ZnS as impurities, were subjected to spectroscopic studies. Comparison of the absorption, excitation and luminescence spectra of such activated crystals revealed a series of weak maxima in the near-ultraviolet and visible absorption spectra, while the excitation spectra showed 1-4 clear maxima in the near-ultraviolet, only some of which, however, coincided with the maxima in the absorption

Card 1/2

ACCESSION NR: AT4016303

spectra. In the case of KBr crystals containing S or Se, the excitation spectra were affected by the method of crystallization. The luminescence spectra showed 1-2 maxima in the visible spectrum, sometimes accompanied by maxima in the near-infrared; these spectra were affected by the temperature and the wavelength of the excitatory light. The luminescence of most of these crystals were only weakly polarized. The results of these studies and studies of the quenching temperature indicate that S and Se probably enter into the crystal lattice as anions; among the systems investigated, only NaCl-Te, KCl-Te and KI-S were non-isomorphous, resulting in only slight luminescence. It is apparent that the luminescence centers are not merely ion activators, and that there are least two types of addition centers in these crystals. "Thanks are expressed to N. Ye. Lushehik for supplying pure S and Se, and to P. P. Feofilov (Doctor in the Physico-Mathematical Sciences) for making available an instrument for measuring the polarization of the luminescence." Orig. art. has: 3 figures.

ASSOCIATION: Latviyskiy Gosudarstvenny*y universitet im. P. Stuchki (Latvian State University)

SUBMITTED: 00 DATE ACQ: 06Mar64 ENCL: 00

SUB CODE: IC OP NO REF SOV: 003 OTHER: 001

Card 2/2

SMITS, O.A.; ZAKIS, Yu.R.

Optical properties of alkali halide crystals containing an impurity of O, S, Se, or Te. Izv.AN SSSR. Ser. fiz. 25 no.3:385-386 Mr '61. (MIRA 14:2)

1. Latviyskiy gosudarstvennyy universitet imeni P. Stuchki.
(Alkali halide crystals--Optical properties)

L 49279-65 EWT(l)/EWT(m)/EEC(b)-2/T/EWP(b)/EWP(t) Pi-4 IJP(c) GG/JD/JG

ACCESSION NR: AP5009520 S/0048/65/029/003/0441/0442

AUTHOR: Nakis, Yu.R.

TITLE: Optical properties of alkali halide crystals with impurity anions /Report, 12th Conference on Luminescence held in L'vov, 30 Jan-5 Feb 1964/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 29, no. 3, 1965, 441-442

TOPIC TAGS: luminescence, alkali halide, potassium compound, hydroxide, carbonate, nitrate

ABSTRACT: KCl and KBr crystals grown in air by the Kyropoulos procedure are known to exhibit a yellow luminescence, the intensity of which is increased by doping with KOH, K_2CO_3, or KNO_3. This luminescence is presumed to be due to O_2^- ions occupying anion sites in the lattice. The author hypothesizes that the O_2 ions are formed by a two-stage process in which the dopant first reacts with the host to form an alkali metal oxide, and this subsequently reacts with free oxygen to form the oxygen molecule ion. To test this hypothesis he has investigated the luminescence of KNO_3, K_2CO_3, and KOH doped KBr crystals grown in vacuum in sealed tubes. These crystals did not exhibit the yellow luminescence, but under some conditions

Card 1/2

L 49279-65
ACCESSION NR: AP5009520

they could be induced to luminesce in the orange or green. The orange luminescence appeared in vacuum grown KOH-doped KBr crystals grown from insufficiently dried KBr. It is ascribed to a product of the reaction between KOH, H_2O, and the host KBr. The green luminescence appeared in vacuum grown K_2CO_3-doped KBr crystals after they had been heated in a CO_2 atmosphere, and also in powdered KBr after heating in air nearly to the melting point. Very pure KBr powder (obtained from large pure single crystals), however, did not show the green luminescence after heating in air. The green luminescence is ascribed to impurity anions formed as a result of reaction of alkali halide salts with absorbed gases. "In conclusion, I express my deep gratitude to G.A.Shmit for his guidance of the work." Orig. art. has: 3 figures.

ASSOCIATION: None

SUBMITTED: 00 ENCL: 00 SUB CODE: OP, SS

NR REF SOV: 000 OTHER: 010

Card 2/2

L 33121-65 EWT(1)/EWP(e)/T/EWP(t)/EEC(b)-2/EWP(b) IJP(c) JD/GS

ACCESSION NR: AP5019979 UR/0371/65/000/002/0053/0062

AUTHOR: Zakis, J. (Zakis, Yu. R.)

TITLE: Effect of oxygen-containing impurity anions on the optical properties of KBr-Cu crystal phosphors

SOURCE: AN LatSSR. Izvestiya. Seriya fizicheskikh i tekhnicheskikh nauk, no. 2, 1965, 53-62

TOPIC TAGS: luminescence center, potassium bromide, crystalline phosphor, roentgenoluminescence

ABSTRACT: The object of the work was to study the role of various oxygen-containing anions in the formation of photoluminescence centers in KBr-Cu crystal phosphors. Absorption (in the ultraviolet, visible, and infrared), luminescence, and excitation spectra of the KBr-Cu phosphors containing OH^-, CO_3^{--}, and SO_4^{--} ions were investigated. The presence of these anions can substantially decrease the luminescence intensity at the 3.17 eV maximum because of the formation of complexes between copper and the impurity anion which do not luminesce. In KBr-Cu crystal phosphors containing SO_4^{--} ions, the copper ions form complexes with the latter which produce a bright green luminescence at 2.40 eV. In almost all KBr

Card 1/2

L 63120-65

ACCESSION NR: AP5019979

2

crystals the presence of SO_4 impurity ions may be the cause of the appearance of this luminescence upon introduction of copper impurities. It is concluded that a change in the concentration of vacancies does not affect the intensity of green luminescence, that the decrease in the latter as a result of irradiation by X-rays is probably due to ionization of the centers of this luminescence, and that the appearance, upon X-irradiation, of centers producing luminescence at 1.80 eV results from the breakdown of green luminescence centers. Orig. art. has: 5 figures.

ASSOCIATION: Latviyskiy gosudarstvennyy universitet im. P. Stuchki (Latvian State University)

SUBMITTED: 10Dec64 ENCL: 00 SUB CODE: OP

NO REF SOV: 010 OTHER: 009

Card 2/2

L 13898-66 EWT(1)/T IJP(c) GG
ACC NR: AP6003170 SOURCE CODE: UR/0030/65/000/012/0096/0097

AUTHOR: Vitol, I. K.; Zekis, Yu. R.; Kundzin', A. P.

62
B

ORG: none

TITLE: Study of electronic processes in thin film structures (Symposium in Riga)

SOURCE: AN SSSR. Vestnik, no. 12, 1965, 96-97

TOPIC TAGS: thin film circuit, semiconducting film, pn junction, space charge, electronic conference, semiconductor carrier, electron emission, solid state physics conference

21,44,55

ABSTRACT: A symposium on electronic processes in thin film structures was held in Riga on May 20-25, 1965. The symposium was sponsored by the Scientific Councils on Semiconductor Physics and Chemistry and Physical Electronics of the Academy of Sciences SSSR, the Scientific and Technical Council of the Ministry of the Electronics Industry of the SSSR and the Latvian University im. P. Stuchki. A total of 350 representatives of scientific organizations from Moscow, Leningrad, Gorkiy, Tashkent, Vilnius, Kiev, Riga, and other cities attended the symposium. The following problems were discussed: physical mechanisms of the pas-

Card 1/2

L 13828-66
ACC NR: AP6003170

sage of current through thin film structures, currents limited by space charge, studying properties of contacts by studying the behavior of hot electrons in thin film systems, electron emission from thin gold films during passage of current, physics of contact phenomena; theoretical studies of electric and physical properties of thin films (particularly the study of statistical and pulse characteristics of triodes), theoretical studies of the behavior of carriers in thin films, and analysis of modern concepts of heterojunctions.

SUB CODE: 20/ SUBM DATE: none

Card 2/2

L 24640-66 EWT(m)/T/EWP(t) IJP(c) JD/JG

ACC NR: AP6010265 SOURCE CODE: UR/0371/66/000/001/0054/0059

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AUTHOR: Zakis, Yu. R. (Zakis, J.)

ORG: Latvian State University im. P. Stuchka (Latviyskiy gosudarstvennyy universitet)

TITLE: Investigation of the vibrational absorption spectra of oxygen-containing anion impurities in alkali halide crystals

27

SOURCE: AN LatSSR. Izvestiya. Seriya fizicheskikh i tekhnicheskikh nauk, no. 1, 1966, 54-59

TOPIC TAGS: IR absorption, absorption spectrum, alkali halide, single crystal, impurity center, crystal impurity, vibration spectrum, anion

ABSTRACT: The author studies the infrared absorption spectra of potassium bromide single crystals containing impurities of sodium sulfate, sodium sulfite and sodium selenite in the region of stretching vibrations of the impurity anions. Since these ions form complexes with crystal lattice defects or with other impurity ions in alkali halide crystals, an investigation of the vibrational absorption spectra of these ions may elucidate the structure of the complexes. The crystal specimens were grown from the melt by the Kyropoulos procedure in air and by the Stokebarger method in open quartz ampules. The sulfate and selenite ions were introduced in concentrations of 0.02 to 0.05 mol %. The IR absorption spectra were measured on an IKS-14 spectrophoto-

Card 1/2

L 24640-66

ACC NR: AP6010265

meter in the 700-1600 cm^{-1} range. The experimental results show a promising future for analysis of vibrational absorption spectra of complex impurity anions in alkali halide crystals as a tool for studying the structure of impurity centers. It is shown that the conditions under which the crystals are grown have a considerable effect on the oxidation-reduction reactions which take place between the impurity and the ambient medium during growth. It is found that the impurity centers consist of an oxygen-containing anion and two anion sites which are not occupied by halide ions. It is established that copper and calcium impurity cations form complexes made up of impurity anions and cations in KBr crystals with Na_2SO_4 impurity. In conclusion, I am sincerely grateful to O. A. Shmit for directing the work. Orig. art. has: 5 figures.

SUB CODE: 07/ SUBM DATE: 20Apr65/ ORIG REF: 020/ OTH REF: 004

Card 2/2

L 02903-67 EWT(m)/EWP(t)/ETI IJP(c) JD
ACC NR: AP6033671 SOURCE CODE: UR/0371/66/000/004/0046/0052

AUTHOR: Zakis, Yu. R.--Zakis, J.

ORG: Latvian State University im. P. Stuchko (Latviyskiy gosudarstvennyy universitet)

TITLE: Investigation of complex impurity centers in KBr—Cu phosphors with anionic impurities

SOURCE: AN LatSSR. Izvestiya. Seriya fizicheskikh i tekhnicheskikh nauk, no. 4, 1966, 46-52

TOPIC TAGS: impurity center, luminescence, electron transition, phosphor, crysatl phosphor, potassium bromide crystal, crystal impurity

ABSTRACT: The results have been presented of a study of impurity centers in KBr crystals with aninonic impurities of CO_3^{--}, SO_3^{--} and ScO_3^{--}. Analysis of IR and UV absorption spectra and spectral characteristics of luminescence indicate that there are complex impurity centers in crystals. These centers consist of impurity Cu anions and ions. It is shown that the electron absorption spectrum in the region of 3.5—50 ev and the luminescence of the complex centers are due to

Card 1/2

L 09903-67
ACC NR: AP6033671

electron transitions in the monovalent Cu ions. The author thanks O. A. Shmit for his guidance of the work, L. S. Pusle and B. V. Rusteskiy for their help in the experiments. Orig. art. has: 4 figures and 1 table. [Based on author's abstract]

SUB CODE: 20/ SUBM DATE: 13Nov65/ ORIG REF: 007/ OTH REF: 009/

Card 2/2

ACC NR: AP7004985 SOURCE CODE: UR/0048/66/030/009/1504/1505

AUTHOR: Zakis, Yu.R.

ORG: none

TITLE: Investigation of the luminescence centers in KBr crystals containing copper and oxygen-containing anionic impurities /Report, Fourteenth All-Union Conference on Luminescence (Crystal Phosphors) held at Riga, 16-23 Sept. 1965/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v.30, no.9, 1966, 1504-1505

TOPIC TAGS: luminescent crystal, alkali halide, potassium bromide, copper, oxygen, anion, cation, impurity center, luminescence spectrum, absorption spectrum, IR ABSORPTION

ABSTRACT: The author briefly discusses on the basis of data and interpretations (some of them his own) already in the literature the infrared absorption and luminescence excitation spectra of KBr crystals containing Cu^+, Oh^-, NO_2^-, NO_3^-, CO_3^{2-}, SO_4^{2-}, and other similar impurities. In some cases the nature of the oxygen-containing anionic impurity depends on the atmospheric oxygen pressure during growth of the crystal. The fact that the infrared absorption peaks are narrow has given rise to the hypothesis that NO_2^-, NO_3^-, CO_3^{2-}, SO_3^{2-}, SO_4^{2-}, SeO_3^{2-}, and SeO_4^{2-} impurities are located on anionic lattice sites in KBr. SO_3^{2-}, SO_4^{2-}, SeO_3^{2-}, and SeO_4^{2-} have been found to relieve the degeneracy of degenerate vibrational levels and to give rise to absorption peaks associated with symmetric bond stretching vibrations; this indicates

Card 1/2

ACC NR: AP7004985

the presence of a lattice defect, probably an anionic vacancy, in addition to the impurity anion on an anionic lattice site. Copper ions form complex impurity centers with some oxygen-containing anions. The characteristics of the electronic and luminescence spectra of Cu^+ ions differ considerably in the presence of different oxygen-containing anions; this phenomenon, and its analogs in the case of other cations, can be employed to investigate the interactions of different impurity ions in crystals, and the luminescence characteristics of cation activated alkali halide crystal phosphors can be altered by the introduction of anionic impurities. Orig. art.has: 2 figures.

SUB CODE: 20 SUBM DATE: none ORIG. REF: 005 OTH REF: 006

Card 2/2

ACC NR: AP7004987 (A) SOURCE CODE: UR/0048/66/030/009/1509/1510

AUTHOR: Kundzin', A.P.; Aleksandrov,S.B.; Zakis,Yu.R.

ORG: none

TITLE: Concerning the mechanism of electroluminescence of thin cadmium sulfide films /Report, Fourteenth All-Union Conference on Luminescence (Crystal Phosphors) held at Riga, 16-23 Sept. 1965/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no.9, 1966, 1509-1510

TOPIC TAGS: electroluminescence, cadmium sulfide, semiconducting film, photo emf

ABSTRACT: The authors investigated the electroluminescence of 1 mm^2 "sandwich" structures consisting of the following elements successively vacuum deposited onto glass substrates: a semitransparent gold film electrode; an approximately 1 micron thick film of cadmium sulfide into which no particular activator impurity had been introduced, and a 200 micron thick indium film electrode. The indium-phosphor contact was practically ohmic, but rectification was found to take place at the gold-phosphor contact. The temperature dependence of the current-voltage characteristic revealed the presence of a 0.6-0.7 eV Schottky barrier. The current-voltage characteristics had approximately the same shape at 90° K as at room temperature, but the currents were some four orders of magnitude smaller at the lower temperature. The rapid rise of the current in the forward direction (with the gold positive) set in at a potential

Card 1/2

ACC NR: AP7004987

somewhat below 1 V. The electroluminescence threshold potential was somewhat higher than 1 V, and the luminescence brightness increased very rapidly with increasing voltage. The luminescence spectrum showed a broad band in the 600-700 mμ region and a weak edge emission band. Photo-emf's (with the gold electrode positive) reaching 0.45 V at room temperature were observed. The photo-emf excitation curve had a peak at 620 mμ and in the 500-400 mμ region it was rising monotonically with increasing photon energy. It is concluded that the low-voltage stationary electroluminescence of the investigated systems in a dc field is due to double injection of carriers, i.e., to the simultaneous injection of electrons and holes. The authors thank Yu.R.Berkovich for measuring the height of the barrier and V.L.Shteynberg for determining the photo-emf excitation curve. Orig. art. has: 1 figure.

SUB CODE: 20 SUBM DATE: none ORIG. REF: 006 OTH REF: 011

Card 2/2

KONSTANTINOVA, V.V.; BELUGINA, G.V.; ZAKIYEVA, S.Kh.; REBINDER, P.A.

Effect of surface-active agents on the strength of structures of concentrated nonaqueous suspensions. Koll.zhur. 25 no.5:555-560 S-O '63. (MIRA 16:10)

1. Institut fizicheskoy khimii AN SSSR, Moskva.

PETROV, S.M., red.; PROKHOROV, V.I., red.; RUMYANTSEV, A.F., red.; SHITAREV, G.I., red.; SHITOV, N.F., red.; ZAKLADNAYA, V.M., red.; NAUMOV, K.M., tekhn. red.

[Toward the victory of communist labor; work practice of the party, Communist Youth League and trade-union organizations with communist labor brigades] K pobede kommunisticheskogo truda; ob opyte raboty partiinykh komsomol'skikh i profsoiuznykh organizatsii s brigadami kommunisticheskogo truda. Moskva, Izd-vo VPSh i AON pri TsK KPSS, 1961. 271 p. (MIRA 14:8)

1. Kommunisticheskaya partiya Sovetskogo Soyuza. Vysshaya partiynaya shkola.

(Socialist competition)

ZAKLINSKAYA, YE. D.

"Significance of gymnospermous pollen for the stratigraphy of the Upper Cretaceous-Lower Paleocene and the botanical-geographical province on the Cretaceous-Tertiary boundary."

"The pollen-spore spectra of the Cretaceous-Tertiary Boundary."

"Taxonomy and nomenclature of fossil spores and pollen in the USSR."

Reports to be submitted to the Intl. Conf. on Palynology, Tucson, Arizona 23-27 Apr 1962.

AS, USSR

ZAKLINSKAYA, Ye.D.

Paleofloristic principles for correlating Cenozoic sediments in Kazakhstan and adjacent parts of the West Siberian Plain. Izv. AN SSSR. Ser. geol. 23 no.10:72-86 O '58. (MIRA 12:1)

1.Geologicheskiy institut AN SSSR, Moskva.
(Kazakhstan--Geology, Stratigraphic)
(West Siberian Plain--Geology, Stratigraphic)
(Paleobotany)

ZAITSEV, V. M.

Mor., Rostov.-On-Don State Univ. im. V. M. Molotov, -c1940-.

"Critical Periods in the Embryological Development of Sturgeon," Dok. AN, 40 No. 5, 1940.

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4. Plants, Effect of Temperature on

7. Problem of spring frost damage to farm crops. Dokl. Akad. sel'-khoz. 18 No. 4, 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

ZAKIYAN, M. Kh.

USSR.

Nucleoproteins of Paramecium during impairment (asphyxia) (of the organism). M. Kh. Zakiyan. *Uchenye Zapiski Permsk. na-Donu Gosudarst Univ., Trudy Biol.-Pochv. Fakulteta* 19, No. 3, 147-9(1953); *Referat. Zhur., Khim.* 1954, No. 32320.—Changes in the amt. of deoxyribonucleic acid (DNA) of the macronucleus of *Paramecium caudatum* were studied in relation to the changes of the normal life conditions. *P. caudatum* was kept in a continuous stream of H for 15 hrs. It was found that the conditions of asphyxia increase the amt. of DNA in the nuclei of the organism.

S. Wierbicki

ZAKIYAN, M. Kh.

Action of light on accumulation by cells and tissues of the roots of dyes and the deposition of the latter in the granules. I. E. Kamuev and M. Kh. Zakiyan (V. M. Molotov State Univ., Rostov-on-Don). *Doklady Akad. Nauk S.S.S.R.* 104, 932-4(1956).—Roots of millet immersed in soln. of neutral red (methylene blue was also used in a few cases) under different illumination levels produced the following effects: The older outer layers of the roots absorb dyes very rapidly; the cells of the sheath which are rich with plasma show the deposition of the dyes in granules which gradually fill the cell. In the central cylinder the dyes are concd. in vacuoles. In young root-hair carrying tissues the dye is not formed into granules, but vacuoles of some cells are dyed. Illumination produces more intense dyeing than is observed in the dark in living tissues, except for the very outer layers which are unaffected. Vital dyeing in the dark produces less granules than in illuminated state. Thus the roots are not indifferent to illumination. G. M. K.

(1)

Country : USSR
Category: Cultivated Plants Commercial. Oil-Bearing. Sugar-Bearing.

M

Abs Jour: RZhBiol., No 11, 1958, No 49046

Author : Kamnev, I. Ye.; Zakiyan, M. Kh.; Butkova, G.B.; Novik, N.P.
Inst : Rostov-na-Donu University
Title : Viability Changes in the Seeds of Sunflowers and Castor Oil Plants During Storage.

Orig Pub: Uch. zap. Rostovsk.-n.-D. un-t, 1956, 26, 85-92

Abstract: Two methods have been tested for the purpose of quickly determining the viability of the seeds. One method, using live staining, is based on the fact that the dyestuff (methylene blue) penetrates into normal living cells and concentrates in the form of

Card : 1/3

M-121

Country : USSR
Category: Cultivated Plants. Commercial. Oil-Bearing. Sugar-Bearing.

M

Abs Jour: RZhBiol., No 11, 1958, No 49046

separate granules, while the protoplasm and the nucleus are not stained. In aged cells, the intensity of granule formation is reduced. In dead cells, no granules are formed, the protoplasm and nucleus stain diffusely. The second method, using microscopic cell observations against a dark ground, is based on the fact that in the absence of light, the nucleus and protoplasm of normal cells are invisible. If a cell is subjected to unfavorable conditions, a radiance is seen in the nuclear membrane and granules of protoplasm. Live staining may be used as a quick and safe method for

Card : 2/3

Country : USSR
Category: Cultivated Plants Commercial. Oil-Bearing. Sugar-Bearing.

M

Abs Jour: RZhBiol., No 11, 1958, No 49046

the determination of seed vitality, while the method of observing the cells against a dark ground is recommended as an auxiliary procedure. -- D.D. Vakhmistrov

Card : 3/3

M-122

KHODKEVICH, E.; KHALIULLIN, R., instruktor-aviamodelist (g.Sitka, Chelyabinskoy obl.); BELOUSOV, A., master sporta; ZAKIYEV, F.

Facts, events, people. Kryl.rod. 12 no.9:22-23 S '61. (MIRA 14:9)
(Aeronautics)

MITROKHIN, I., slesar'; ZAKIYEV, G., elektromonter

Trade union laws should be strengthened. Sov.profsoiuzy 7 no.24:41 D '59. (MIRA 12:12)

1. Profsoyuznyye organizatory grupp Otdela energetiki tsekha sborki i ispytaniy avtomobiley Moskovskogo zavoda im. Likhacheva. (Labor laws and legislation)

ZAKIYEV, Kh.Ya., kand. geogr. nauk

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ZAKIYEV, Kh.Ya., kand. geograf. nauk; BURIACHENKO, M.G., inzh. aerofotogeodezist

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(Davis Sea--Ice)